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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

POON, KING Y

ART UNIT PAPER NUMBER

2624

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/364,070

Applicant(s)

SUZUKI ET AL.

Examiner

King Y. Poon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner. *see notice of draftperson's patent drawing review attached to paper # 4*
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/544,076.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/24/2002 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bain et al. (US 5,287,434) in view of Lobiondo (US 5,287,194)

Regarding claim 15: Bain teaches a job scheduling device (PC 14, column 3, lines 50-55) which sequentially stores jobs, (job, fig. 4, J1, J2..., fig. 1) for which processing requests (the request of user of how to process print job, column 4, lines 35-46) were received, in a queue

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(column 8, lines 35-40) and sequentially processes the jobs (search for the highest priority job to be printed, column 10, lines 40-46, i.e., process the job in the sequence from highest priority to lowest priority) held in the queue using a job execution section, (the routine of processor that distribute a print job to a printer, column 11, lines 58-63), the job scheduling device comprising: a plurality of queues (Q1-Qn, fig. 1) provided corresponding to states of the jobs; (the job to be printed by a certain type of printer, column 8, lines 25-35), and scheduling means (the routine of the processor 19 that schedules print job, using queues, according to the type of printer and priority, column 8, lines 25-35) for scheduling the jobs using the plurality of queues; and recovery means (the routine of the processor that restarts job such that each job continues on the same printer, column 15, lines 20-25, column 17, lines 25-35) for recovering previous state of each of the jobs (column 15, lines 20-25) being held in the plurality of queues, at the time of recovery from a failure, (recover from the failure to start the spooler due to termination, column 15, lines 12-25) if any failure occurred while the jobs are being scheduled by the scheduling means. (The processor is processing (scheduling) jobs on printers, column 14, lines 62-68, column 15, lines 1-12, when termination of spooler occurs)

Bain does not teach receiving processing request from terminals.

Lobiondo, in the same area of using a job scheduler device (column 3, lines 40-45) for scheduling print jobs, to be printed by printers, (column 4, lines 45-50), using printer queue (430, fig. 4), teaches the job scheduler device (scheduler 50, column 3, line 41) would receive and

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schedule print job processing request (criteria of print job, column 3, lines 35-50) from different terminals. (Workstation 30, column 3, lines 25-35)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Bain's job scheduling device to receive print job processing request from different terminals.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Bain's job scheduling device by the teaching of Lobiondo because of the following reasons: (a) it would have allowed a user at any local area within the network of the scheduling device and the different terminals to control printing of a job, as taught by Lobiondo, at column 2, lines 32-35; and (b) it would have allowed the job scheduling device to schedule print jobs for different users at different locations (terminals) and increased the usage of the system.

Note: Bain teaches the processor is controlled by software routine, column 3, lines 5-35, and lines 55-56. It is inherent that different functions carried out by a processor is controlled by different software codes or routines when a processor is run by software.

Regarding claim 16: Bain et al teaches a job scheduling device (PC 14, column 3, lines 50-55) for storing, in a queue, (fig. 4, column 8, lines 35-40) print jobs (job, fig. 2, J1, J2, ..., fig. 1) which include print data and attribute information (column 8, lines 35-40, column 6, lines 55-69) and for which processing requests (the request of user of how to process print job, column 4, lines 34-46) were received and for sequentially printing the print jobs held in the queue (search for the

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highest priority job to be printed, column 10, lines 40-46, i.e., print job in the sequence from highest priority to lowest priority) based on the attribute information (job's priority, column 10, lines 40-45) using a job execution section, (the routine of processor that distribute a print job to a printer, column 11, lines 58-63) the job scheduling device comprising: a plurality of queues (Q1-Qn, fig. 1) provided corresponding to states of the jobs; (the job to be printed by a certain type of printer, column 8, lines 25-35), and scheduling means (the routine of the processor 19 that schedule print job according to the type of printer and priority, column 8, lines 25-35) for scheduling the jobs using the plurality of queues; and attribute modifying means (routine block 78, column 8, lines 1-8) for modifying the attribute information (priority, column 8, line 2) only when a print job can be changed at the time that an instruction (change request message, column 8, lines 1-8) for modifying the attribute information (priority, column 8, line 2) of the print job is received, and when the instruction is free from errors (instruction is free from error is being interpreted as the microprocessor would recognize the change request message as a change request message. Errors in the change request message means the microprocessor would not recognize the change request message. The microprocessor change the attribute in response to a change request message/instruction, column 8, lines 1-10. Therefore, the microprocessor would change attribute only when the instruction is free from error).

Bain does not teach receiving processing request from terminals.

Lobiondo, in the same area of using a job scheduler device (column 3, lines 40-45) for scheduling print jobs, to be printed by printers, (column 4, lines 45-50), using printer queue (430,

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fig. 4), teaches the job scheduler device (scheduler 50, column 3, line 41) would receive and schedule print job processing request (criteria of print job, column 3, lines 35-50) from different terminals. (Workstation 30, column 3, lines 25-35)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Bain's job scheduling device to receive print job processing request from different terminals.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Bain's job scheduling device by the teaching of Lobiondo because of the following reasons: (a) it would have allowed a user at any local area within the network of the scheduling device and the different terminals to control printing of a job, as taught by Lobiondo, at column 2, lines 32-35; and (b) it would have allowed the job scheduling device to schedule print jobs for different users at different locations (terminals) and increased the usage of the system.

Note: Bain teaches the processor is controlled by software routine, column 3, lines 5-35, and lines 55-56 It is inherent that different functions carried out by a processor is controlled by different software codes or routines when a processor is run by software.

Allowable Subject Matter

4. Claims 1-6 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

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Regarding claim 1: The invention is directed to a job processing system for scheduling print jobs using a print queue. The claim identifies the features of “attribute information setting means for acquiring attribute information included in received job and set the attribute information to information which specifies a job and a document,” “a queue for storing, as a job, a group of items of the information which specify a job and a document, the information including a job copy number count which specifies a number of copies of the current job,” and “output result control means which, upon reference to the information for specifying a job and a document with respect to the job stored in the queue, controls the processing request issued to the job execution section in such a way that the specified number of copies of the job are output using the information which specifies a job output method” The closest prior art, Bain et al (US 5,287,434), Sugiura et al (US 6,047,111), and Lobiondo (US 5,287,194) disclosed a job scheduling system, either singularly or in combination, fails to anticipate or render the above limitations (in combination with other claimed limitations) obvious.

Regarding claim 2: The invention is directed to a job processing system for scheduling print jobs using a print queue. The claim identifies the features of “a queue for storing, a plurality of documents as a job, a group of items of the information which specify a job and a document, the information including a job copy number count which specifies a number of copies of the current job,” and “output result control means which, upon reference to the information for specifying a job and a document with respect to the job stored in the queue, controls the processing request issued to the job execution section in such a way that the specified number of

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copies of the job are only output in a collated manner if collation processing is specified in the information relating to a job output result using the information which specified a job and a document, or in such a way that the specified number copies of the job are only output in an uncollated manner if uncollation processing is specified in the information relating to the job output result using the information which specifies a job and a document.” The closest prior art, Bain et al (US 5,287,434), Sugiura et al (US 6,047,111), and Lobiondo (US 5,287,194) disclosed a conventional job scheduling system, either singularly or in combination, fails to anticipate or render the above limitations (in combination with other claimed limitations) obvious.

Regarding claim 3: The invention is directed to a job processing system for scheduling print jobs using a print queue. The claim identifies the features of “control information specifying means for specifying a process start wait for a leading document among a plurality of documents,” “control information setting means which, if a processing start wait is specified for the leading document among a plurality of received documents, sets the processing start wait to information for specifying this leading document” and “wherein the job scheduling device sequentially retrieves jobs stored in the queuing means and when a job is placed in the processing start wait state, prevents the issue of processing requests with respect to a document for that job and documents for subsequent jobs until that job is released from the processing start wait state by a user’s instruction or a timeout.” The closest prior art, Bain et al (US 5,287,434) and Sugiura et al (US 6,047,111) disclosed a conventional job scheduling system, either singularly or in

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combination, fails to anticipate or render the above limitations (in combination with other claimed limitations) obvious.

Regarding claim 4: The invention is directed to a job processing system for scheduling print jobs using a print queue. The claim identifies the features of “control information specifying means for specifying a process completion wait for a leading document among a plurality of documents,” “control information setting means which, if a processing completion wait is specified for the leading document among a plurality of received documents, sets the processing completion wait to information for specifying this leading document” and “wherein the job scheduling device sequentially retrieves jobs stored in the queuing means and when a job is placed in the processing completion wait state, prevents the issue of processing requests with respect to a document for that job and documents for subsequent jobs until that job is released from the processing completion wait state by a user’s instruction or a timeout.” The closest prior art, Bain et al (US 5,287,434) and Sugiura et al (US 6,047,111) disclosed a conventional job scheduling system, either singularly or in combination, fails to anticipate or render the above limitations (in combination with other claimed limitations) obvious.

Regarding claim 5: The invention is directed to a job processing system for scheduling print jobs using a print queue. The claim identifies the features of “control information setting means for specifying a password input wait for a leading document among a plurality of documents,” “control information setting means which, if a password input wait is specified for the leading document among a plurality of received documents, sets the password input wait to

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information for specifying that leading document” and “wherein the job scheduling device sequentially retrieves jobs stored in the queuing means and when a job is placed in the password input wait state, prevents the issue of processing requests with respect to a document for that job and documents for subsequent jobs until that job is released from the password input wait state by a user’s instruction or a timeout.” The closest prior art, Bain et al (US 5,287,434) and Sugiura et al (US 6,047,111) disclosed a conventional job scheduling system, either singularly or in combination, fails to anticipate or render the above limitations (in combination with other claimed limitations) obvious.

Regarding claim 6: The invention is directed to a job processing system for scheduling print jobs using a print queue. The claim identifies the features of “attribute information adding means for adding information relating to job wait control and message information relating to the wait control to the job request as attribute information,” and “message information informing means which, when the job enters the wait control state, informs the terminal equipment of message information set with respect to that job” The closest prior art, Lobiondo disclosed a conventional job scheduling system, either singularly or in combination, fails to anticipate or render the above limitations (in combination with other claimed limitations) obvious.

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

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Response to Arguments

6. Applicant's arguments with respect to claims 15, 16 have been considered but are moot in view of the new ground(s) of rejection. Please see office action.

Applicant's arguments with respect to claims 1-6 are persuasive.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892

March 10, 2003

King Y. Poon